

LEVITIN, Karl Yefimovich; MELAMED, Anatoliy Davidovich; CHERNIKOVA,
V.K., red.

["NEV" patent; conversations with Azerbaijan scientists]
Patent NRV; besedy s azerbaidzhanskimi uchenymi. Moskva,
Izd-vo "Znanie," 1964. 48 p. (Novoe v zhizni, nauke, tekhnike. XI Seriya: Khimiya, no.5) (MIRA 17:7)

GOL'DANSKIY, Vitaliy Iosifovich; MAKAROV, Yevgeniy Fredovich;
CHERNIKOVA, V.K., red.

[New trends in nuclear chemistry] Novye napravleniia
iadernoi khimii. Moskva, Izd-vo "Znanie," 1964. 51 p.
(Novoe v zhizni, nauke, tekhnike. XI Seriya: Khimiia,
no.12) (MIRA 18:1)

1. Chlen-korrespondent AN SSSR (for Gol'danskiy).

ORMONT, Boris Filippovich, doktor khim. nauk, prof.; CHERNIKOVA,
V.K., red.

[Physical chemistry of semiconductors] Fizicheskaya khimiya poluprovodnikov. Moskva, Znanie, 1964. 55 p. (Novoe v zhizni, nauke, tekhnike. XI Seriya: Khimiya, no.9)
(MIRA 17:11)

OBREIMOV, Ivan Vasil'yevich, akademik; CHERNIKOVA, V.K., red.

[Molecules and crystals] Molekuly i kristally. Moskva,
Izd-vo "Znanie," 1964. 79 p. (Novoe v zhizni, nauke,
tekhnike. XI Seriya: Khimiia, nos.10-11) (MIRA 18:1)

MEZENTSEV, Vladimir Andreyevich; CHEPNIKOVA, V.K., ed.

[The chemical industry and economics] Khimicheskaya in-
dustriya i ekonomika. Moskva, Izd-vo "Znanie," 1965. 47 p.
(Novoe v zhizni, nauke, tekhnike. XI Seriya: Khimiya, no.1)
(MIRA 18:1)

ChERNIKOVA, V. Ye., Cand Med Sci -- (diss) "Phase-contrast and luminescent microscopy in the clinic and laboratory diagnosis of malignant neoplasms," Kharkov, 1960, 19 pp (Kharkov Medical Institute) (KL, 37-00, 122)

CHEERNIKOVA, V.Ye.

Phase contrast and luminescent microscopy in the morphological
(cytological) diagnosis of malignant neoplasms. Lab.delo 6
no.2:27-29 Mr-Ap '60. (MIRA 13:6)

1. Kafedra laboratory diagnostiki (zav. - prof. A.Ya. Al'tgauzen)
[deceased]), Ukrainskogo instituta usovershenstvovaniya vrachey
(dir. - dotsent I.I. Ovsienko).
(MICROSCOPY, MEDICAL) (CANCER)

SHUBTSOVA, I.G.; KUDASHOVA, R.V.; GLIKMAN, S.A.; Prinimali uchastiye: Ponomareva, L.; CHERNIKOVA, Ye.; SILKINA, N.

Effect of metal ions and of the anions of organic acids on the mechanical properties of agaroid gels. Koll.zhur. 25 no.6:728-731 N-D '63.
(MIRA 17:1)

1. Saratovskiy universitet, kafedra fiziko-khimii polimerov.

KAMAROV, V.A.; CHERNIKOVA, Ye.A.; DROZDOVA, V.M.

Determination of the surface and porosity of solids by means of
low-temperature adsorption of gases. Uch.zap.Len.un. no.131:
53-78 '49. (Adsorbents) (MIRA 9:6)

USER/ Chemistry - Physical chemistry

Card 1/2 Pub. 147 - 15/21

Authors : Komarov, V. A., and Chernikova, Ye. A.

Title : Effect of certain hydroxide admixtures on the dehydration of $\text{Al}(\text{OH})_3$

Periodical : Zhur. fiz. khim. 29/10, 1876-1882, Oct 1955

Abstract : The process of $\text{Al}(\text{OH})_3$ dehydration (pure aluminum hydroxide and $\text{Al}(\text{OH})_3$ containing admixtures of other hydroxides) was investigated by the continuous oven suspension and thermographic methods. A strong effect of other hydroxide admixtures on the dehydration of $\text{Al}(\text{OH})_3$ was definitely established. Foreign hydroxide admixtures result in the reduction in the

Institution : Leningrad University im. A. A. Zhdanov, Inst. of Chem.

Submitted : March 19, 1955

Card 2/2

Pub. 147 - 15/21

Periodical :

Zhur. fiz. khim. 29/10, 1876-1882, Oct 1955

Abstract :

number of endothermal maxima corresponding to the maximum rate of water separation and in the reduction of the temperature interval between the maxima. The specific surface of $\text{Al}(\text{OH})_3$ compounds containing admixtures was found to be smaller than the surface of pure compounds. Nine references: 6 USSR and 3 Germ. (1924-1954). Tables; graphs.

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AUTHORS:

Komarov, V. A., Chernikova, Ye. A., S/076/60/034/01/006/044
Kvyatkovskaya, G. R., Piganova, Ye. A. B010/B014
(Leningrad)

TITLE:

The Effect of the Admixture of Some Oxides to Aluminum Oxide
Upon the Catalytic Properties of the Latter in the Decomposition
of Isopropyl Alcohol

PERIODICAL:

Zhurnal fizicheskoy khimii, 1960, Vol 34, Nr 1, pp 43 - 45 (USSR)

ABSTRACT:

In this paper the authors investigated the effect of various
oxide admixtures upon the catalytic properties of aluminum
oxide. The admixtures and their concentrations were chosen in
such a manner that their addition could effect an extension of
the lattice of the basic oxide. The investigation of the oxide
preparations as catalysts comprised the determination of the
initial reaction temperature at the beginning of gas formation
(Ref 3) and the performance of experiments at different tempera-
tures and volume rates. Results are compiled in tables 1 and 2.
Herefrom it follows that the initial temperature hardly depends
on the presence of admixtures. The decomposition rate of iso-
propyl alcohol is somewhat influenced by 1 mole% of the admix-
tures, and is increased according to their character and experi-

Card 1/2

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The Effect of the Admixture of Some Oxides to
Aluminum Oxide Upon the Catalytic Properties of
the Latter in the Decomposition of Isopropyl Alcohol

S/076/60/034/01/006/044
B010/B014

mental temperature. The selectivity of aluminum oxide is not affected by the addition of 1 mole% of the admixtures. Its activity is slightly increased during the catalytic dehydration of isopropyl alcohol. A comparison of table 1 with table 2 shows that there is no close relation between the effect of the admixtures upon the catalytic activity of Al_2O_3 and the struc-

ture of the respective preparations. A comparison of the dehydration kinetics of isopropyl alcohol on aluminum-oxide preparations with different content of admixtures shows the following: Admixtures increase the activation energy of the reaction and simultaneously increase the factor of the exponential function, or they reduce the activation energy together with the factor of the exponential function. The data obtained in this paper confirm S. Z. Roginskiy's assumptions concerning the modifying action of admixtures (Ref 5). G. M. Zhabrova is also mentioned in this paper. There are 2 tables and 6 references, 4 of which are Soviet. 4

SUBMITTED:
Card 2/2

April 23, 1958

KOMAROV, V.A.; CHERNIKOVA, Ye.A.; KOMAROV, G.V.; LEONCHIK, Z.I.

Mechanism of the catalytic action of metal oxides in the reaction of decomposition of formic acid. Vest. LGU 15 no.16:120-133 '60.

(Metallic oxides)

(Formic acid)

(MIRA 13:8)

(Catalysts)

KOMAROV, V.A.; ABDULAYEVA, S.A.; CHERNIKOVA, Ye.A.

Reactions between tin oxides and isopropyl alcohol.

Kin.i kat. 3 no.6:920-926 N-D '62. (MIRA 15:12)

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.
(Tin oxide) (Isopropyl alcohol)
(Catalysis)

KOMAROV, V.A.; CHERNIKOVA, Ye.A.; KOMAROV, G.V.

Effect of admixtures to aluminum and iron oxides on the catalytic decomposition of formic acid. Zhur. fiz. khim. 36 no.3: 540-545 Mr '62. (MIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

KOMAROV, V. A.; CHERNIKOVA, Ye. A.; KOMAROV, G. V.; LEONCHIK, Z. I.

Mechanism of the catalytic action of metallic oxides in the reaction of decomposition of formic acid. Part 1: Composition of the reaction products. Zhur. fiz. khim. 36 no.12:2577-2581 (MIRA 16:1)
D '62.

1. Leningradskiy gosudarstvennyy universitet imeni Zhdanova.

(Formic acid) (Metallic oxides) (Catalysis)

CHERNIKOVA, Ye.D.

Changes in the circulating blood volume in ontogenesis
following artificially induced hypovolemia and hypervolemia.
Fiziol. zhur. 49 no.1:79-84 Ja '63. (MIRA 17:2)

1. From the Department of Pathologic Physiology, Pediatric
Medical Institute, Leningrad.

CHEMISTRY

Effect of cortisone on the regulation of the volume of circulating blood. Pat. fiziol. i eksp. terap. 9 no.3:64-66 My-Je '65.
(MIRA 18:9)

1. Kafedra patologicheskoy fiziologii (zav.- prof. N.T. Shutova)
Leningradskogo pediatricheskogo meditsinskogo instituta.

SHUTOVA, N.T.; CHERNIKOVA, Ye.D.

Report on the meetings of the Leningrad Branch of the All-Union
Society of Pathophysiologists for 1962. Pat. fiziol. i eksp.
terap. 8 no.1:88-89 Ja-F '64. (MIRA 18:2)

1. Predsedatel' pravleniya Leningradskogo otdeleniya Vsesoyuznogo
obshchestva patofiziologov (for Shutova) 2. Sekretar' pravleniya
Leningradskogo otdeleniya Vsesoyuznogo obshchestva patofiziologov
(for Chernikova).

CHERNIKOVA, Z.A.

Genomanian tripolis in Bessarabia. Sov. geol. 4 no.3:106-111 Mr '61.
(MIRA 14:5)

1. Upravleniye po geologii i okhrane neдр pri Sovete Ministrov
Moldavskoy SSR.

(Bessarabia--Geology, Stratigraphic)
(Tripoli (Mineral))

CERNIKOVA, Z. A. [Chernikova, Z. A.]

Senoman diatomites of Bessarabia.. Analele geol geogr 15 no.4:53-58
O-D '61.

(Bessarabia--Diatomaceous earth)

KITYK, V.I.; CHERNIKOVA, Z.A.; SELEKTOR, S.M.

Reviews and bibliography. Geol. zhur. 25 no.2:108-112 '65.

(MIRA 18:6)

1. Institut geologii i geokhimii goryuchikh iskopayemykh AN UkrSSR.
(for Kityk).
2. Moldavskoye geologicheskoye upravleniye (for Chernikova).
3. Tsentral'nyy gornoobogatitel'nyy kombinat
(for Selektor).

CHERNIKOVA, ZS

MEDOVYY, I.L.; CHERNIKOVA, Z.S.

Importance of studying the functional state of the central nervous system by motor chronaximetry in tuberculosis [with summary in French]. Probl.tub. 35 no.8:30-33 '57. (MIRA 11:4)

1. Iz legochno-gortannogo otdeleniya (zav. - kandidat meditsinskikh nauk I.S.Gondel'mah-Binehtok) i kabineta funktsional'noy diagnostiki Klinicheskogo tuberkuleznogo sanatoriya No. 1 Vserossiyskogo tsentral'nogo soveta profsoyuzov "Dolossy" (i.o.glavnogo vracha S.V.Belyayev)

(TUBERCULOSIS, PULMONARY, physiol.

CNS funct., chronaximetry determ. (Rus))

(CENTRAL NERVOUS SYSTEM, physiol.

in pulm. tuberc., chronaximetry (Rus))

CHERNIKOVA, Z.V.

Carbohydrates of the mycelium of *Microsporon tomentosum* and
methods for a qualitative analysis. Izv.Sib.otd.AN SSSR no.7:91-
-103 '60. (MIRA 13:8)

1. Novosibirskiy meditsinskiy institut.
(Carbohydrates) (Mycelium)

CHERNIKOVA, Z.V.

Chemical nature of biologically active substances of Kaufmann-Wolff Epidermophyton. Izv.SO AN SSSR no. 8. Ser. biol.-med. nauk no.2:91-98 '63. (MIRA 16:11)

1. Novosibirskiy meditsinskiy institut.

*

CHERNIKOVSKIY, Yu. F.

CHERNIKOVSKIY, Yu. F., inzh.

Repairing parts of building machines. Mekh.stroi. 14 no.7:23 J1 '57.

(MIRA 10:11)

(Building machinery--Maintenance and repair)

CHERNILEVSKIY, N.S.

MIKHALOVSKIY, A.G., professor; CHERNILEVSKIY, N.S.

Effect of fertilizers on yields of lupine and physical properties
of turf-Podzolic soils. Zemledelie 4 no.11:115-117 N '56.
(MIRA 10:2)

1. Ukrainskaya sel'skokhozyaystvennaya akademiya.
(Fertilizers and manures) (Polesye--Lupine)

CHERNILEVSKIY, N. S., Cand of Agric Sci -- (diss) "Influence of organic and mineral fertilizers on the growing of lupine and on the process of enriching land by planting a legume crop in Poles'ya, Ukrainian SSR." Kiev, 1957, 19 pp (Ukrainian Agricultural Academy), 100 copies (KL, 32-57, 95)

ZUBENKO, V.F., kand.sel'skokhozyaystvennykh nauk; CHERNILEVSKIY, N.S.,
kand.sel'skokhozyaystvennykh nauk

Distribution of winter crops in crop rotations of the
Ukrainian Polesye. Zemledelie 8 no.9:31-35 S '60.

(MIRA 13:8)

1. Zhitomirskaya oblastnaya gosudarstvennaya sel'skokhozyaystvennaya
opytная stantsiya.

(Polesye--Rotation of crops)

(Polesye--Grain)

CHERNILIN, N.F.

TERENT'YEV, Aleksey Vasil'yevich; MILLER, Boris Nikolayevich; ~~CHERNILIN, Nikolay Filippovich~~; PAVLOV, Ye.G., retsenzents; CHERNYSHOV, I.G., retsenzents; DORMENKO, V.V., spetsredaktor; KUZ'MINA, V.S., redaktor; YAROV, E.M., tekhnicheskii redaktor

[Hydraulic machinery in the fish industry] Gidravlicheskaia mekhanizatsiia v rybnoi promyshlennosti. Izd. 2-oe, perer. i dop. Moskva, Pishchepromizdat, 1956. 299 p. (MLRA 10:1)
(Fisheries) (Hydraulic machinery)

BREGADZE, Yu.I.; ISAYEV, B.M.; KVASOV, V.A.; LEVIN, B.A.; CHERNILIN, Yu.F.

Production of "pure" fluxes of fast neutrons for radiobiological
works using an IRT-1000 reactor. Atom. energ. 12 no.6:537-538

Je '62.

(MIRA 15:6)

(Nuclear reactors)

(Neutrons)

(Radiobiology)

L 13660-63 EWP(j)/EPF(c)/EWT(m)/BDS AFFTC/ASD Pc-1/Pr-1 RM/JYT(IJP)
 ACCESSION NR: AP3001426 8/0138/63/000/004/0010/0013 69

AUTHOR: Kaplunov, M. Ya.; Khozak, V. K.; Chernilin, Yu. F.; Korneyev, V. T. 67

TITLE: Radiation vulcanization¹⁹ of automobile tires and detachable tread in the
 basin of IRT reactor 15

SOURCE: Kauchuk i rezina, no. 4, 1963, 10-13

TOPIC TAGS: radiation vulcanization, automobile tire, protector ring, gamma radiation

ABSTRACT: The irradiation was conducted in the basin of the IRT reactor, where experimental samples of automobile tires and protector rings were vulcanized by gamma radiation, while the reactor was shut off, and by mixed neutron and gamma radiation while it was in operation. The rubber compounds used were of natural and butadiene-styrene rubbers, to which were added 50% by weight of channel carbon black and 10% of the sensitizer hexachloroethane. The cord consisted of capron polyamide fiber. The steel mold of the tire and the protector rings were enclosed in an aluminum casing, which was screened with 1-mm sheet cadmium to protect them from neutron radiation. The protector rings were further insulated with boron-carbide. Since the irradiation in the non-operating reactor did not produce the desired effect due to the low potency of gamma rays, further experiments were
 Cord 1/2

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ACCESSION NR: AP3001426

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conducted only when the reactor was in operation. The quanta of gamma irradiation received by the tires averaged 25 Mradon for a period of 45 hours. The obtained samples were subjected to standard static and dynamic tests, showing that radiation vulcanization was superior to conventional vulcanization, producing a tire with a 30% lower rolling resistance, as well as a 15-20C lower temperature within the tire during the rolling test. Preliminary road tests demonstrated a 30-40% superior wear for the radiation-vulcanized tires. Orig. art. has: 3 charts.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promy*shlennosti i institut atomnoy energii im. I. V. Kurchatova (Scientific Research Institute of the Tire Industry and Institute of Atomic Energy)

SUBMITTED: 00

DATE ACQ: 30May63

ENCL: 00

SUB CODE: 00

NO REF SOV: 005

OTHER: 002

Cord 2/2

ACROSS THE BOARD

moderation. Such a neutron spectrum

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APPROVED FOR RELEASE: 06/12/2000

CIA-RDP86-00513R000308520004-9"

1. Introduction

2. Background

3. Methodology

4. Results

5. Discussion

6. Conclusion

7. REFERENCES

ABSTRACT: The authors attempt to describe the transients occurring in the system. The system is a nonlinear system with a time-varying parameter. The system is described by a set of nonlinear differential equations. The system is analyzed using the method of averaging. The results show that the system exhibits a variety of transient behaviors. The authors provide a detailed analysis of the system's behavior and discuss the implications of the results. The authors also provide a detailed analysis of the system's behavior and discuss the implications of the results.

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1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 26

NY SEP 8 1964

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ACC NR: AP6003583

SOURCE CODE: UR/0170/66/010/001/0046/0050

AUTHOR: Chernilin, Yu. F.; Ostapenko, V. V.; Isayev, A. N.

ORG: Institute of Atomic Energy im. I. V. Kurchatov, Moscow (Institut atomnoy energii)

TITLE: Certain problems of emergency cooling of the IRT reactor

SOURCE: Inzhenerno-fizicheskii zhurnal, v. 10, no. 1, 1966, 46-50

TOPIC TAGS: reactor control, nuclear fuel, thermal reactor, nuclear research reactor, nuclear reactor control equipment, cooling rate, nuclear reactor coolant /IRT reactor

ABSTRACT: The thermal operating conditions of the fuel assembly of a thermal research reactor in emergency shutdown of the main circulating pumps are studied. The downward direction of the coolant circulation under normal conditions is assumed. The effect of the safety system trip lag of the fuel assembly on the thermal conditions is estimated. Certain results of electronic and stand modelling are presented. The cross section of the fuel assembly and the schematic drawing of the stand are given. Equations of the safety rod motion (1) and of the water motion in the loop (7) are derived. Orig. art. has: 4 figures and 7 formulas. [Based on author's abstract].

SUB CODE: 18, 09/ SUBM DATE: 200ct64/ ORIG REF: 008/ OTH REF: 001/

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UDC: 621.039.566.8

L 24711-66 EWT(m)/ETC(f)/EPF(n)-2/ENG(m) WW

ACC NR: AT6008414

SOURCE CODE: UR/3136/65/000/992/0001/0025

AUTHOR: Goncharov, V. V.; Chernilin, Yu. F.; Shavrov, P. I.; Chernyshevich, V. N.; Yegorenkov, P. M.; Zhigachev, V. M.; Larin, I. I.; Korneyev, V. T.; Yashin, A. F.

ORG: none

TITLE: Remodeling the IRT reactor at the Institute of Atomic Energy imeni I. V. Kurchatov

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-992, 1965. Rekonstruktsiya reaktora IRT v IAE im. I. V. Kurchatova, 1-25

TOPIC TAGS: nuclear reactor, reactor fuel element, nuclear reactor core

ABSTRACT: The authors describe steps taken to redesign the IRT reactor at the Institute of Atomic Energy. The following units and systems were altered to increase the power of the reactor, expand its range of experimental possibilities, and improve its operational qualities: 1. fuel elements and reactor core design; 2. cooling system; 3. experimental units; 4. control and shielding system; 5. radiation-monitoring system; 6. special ventilation. Figures are given showing the

Card 1/2

L 24711-66

ACC NR: AT6008414

longitudinal and transverse cross sections of the reactor as well as detailed diagrams of the reactor core and the channel for the "cold" neutron source. The new fuel assemblies have nearly twice as much heat-transfer area as the rod elements formerly used. Each assembly contains 155 grams of 36% enriched U-235. Metallic beryllium is used as the reflector. The core contains 54 cells in all and has a 50 mm lead shield for stopping γ -radiation. The experimental units include horizontal and vertical channels as well as a "cold" neutron source and a thermal neutron "trap". The modifications made in the reactor give a maximum thermal neutron flux (U-235) in the core of $5 \cdot 10^{13}$ neutrons/cm² sec, a maximum fast neutron intensity ($E > 0.5$ Mev) of $9 \cdot 10^{13}$ neutrons/cm² sec, and a power of 4000-5000 kw. The procedure used for disassembly and reassembly operations in the reactor pool is described. Some of the physical and technical characteristics of the modified IRT-M reactor are tabulated. Orig. art. has: 10 figures, 3 tables.

SUB CODE: 18/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 006

Card 2/2

YEMEL'YANOV, P.M., inzh.; CHERNILOV, E.G., inzh.

Modernization of the NKR-100 semiautomatic boring machine. Gor.zhur.
no.10:56-57 0 '64. (MIRA 18:1)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for
Yemel'yanov).

CHERNILOV, L.

As an aid to students in technical schools ("Sample calculations and problems in the field of mechanical transportation equipment" by P.V. Blokhin. Reviewed by L. Chernilov). Muk.-elev.prom. 23 no. 2:32-33 of cover F '57. (MLRA 10:5)

1. Novocherkasskiy elevatorny tekhnikum.
(Conveying machinery)
(Blokhin, P.V.)

CHERNILOV, I., inzh.

Constructing a curve for the transition of a conveyor belt from the horizontal to the inclined part. Muk.-elev. prom. 25 no.8:22-23
Ag '59. (MIRA 13:1)

I:Novocherkasskiy elevatoryy tekhnikum.
(Conveying machinery)

VORONTSOV, Oleg Samoylovich, dots., kand. tekhn. nauk; Prinialy uch.: SHUMSKIY, O.D., dots.
kand. tekhn. nauk; CHERNILOV, L.O., inzh., prepodavatel'; RYSIN,
P.I., prepodavatel'; TAMUTIN, P.P., starshiy nauchnyy sotr.,
kand. tekhn. nauk, red.; KRIVYAKIN, B.I., red.; GOLUBKOVA, L.A.,
tekhn. red.

[Elevators, granaries, and grain processing enterprises] Elevatory,
sklady i zernopereperabatyvaiushchie predpriatiia. Pod red. O.D.
Shumskogo i P.P. Tamutina. Moskva, Izd-vo tekhn. i ekon. lit-ry po
voprosam khleboproduktov. Pt. 1. [Types, constructional features and
operation] Tipy i konstruktsii sooruzhenii i ikh ekspluatatsiia.
1961. 269 p. (MIRA 14:8)

1. Novocheboksakiy elevatornyy tekhnikum (for Chernilov). 2. Moskov-
skiy politekhnikum (for Rysin)
(Grain elevators) (Flour mills)

CHERNILOV, L.

"Technical manual for grain elevator workers." Reviewed by L. Chernilov. Muk.-elev. prom. 27 no.7:31-32 J1 '61. (MIRA 14:7)

1. Novocherkasskiy elevatornyy tekhnikum.
(Grain elevators)
(Grain-handling machinery--Maintenance and repair)

CHERNILOV, O., inzhener.

Drive of traveling belt conveyers. Muk.-elev.prom. 20 no.10:11-12
0 '54. (MLRA 7:12)

1. Novocherkasskiy elevatorny tekhnikum.
(Conveying machinery)

FISHER, P.Z.; VYZGO, V.S.; ~~CHERNILOVSKAYA, A.I.~~; TSYGANOV, G.A.

Potentials on electrodes nickel-plated from modified baths. Trudy
Inst. Khim., Akad. Nauk Uzbek. S.S.R., Obshchaya i Neorg. Khim. No.2,
152-63 '49. (MLRA 5:12)
(CA 47 no.17:8554 '53)

1. Inst. Khim., Uzbek. S.S.R.

CHERNILOVSKIYA, A. I.

Chemical Abst.

Vol. 48 No. 9

May 10, 1954

Water, Sewage, and Sanitation

Purification of hard water with H zeolite. A. I. Chernilovskaya. *Trudy Inst. Khim., Akad. Nauk Uzbek. S.S.R.* 3, 230-40 (1952).—A lab. investigation was made of the water-softening properties of H zeolite (I) prepd. from coal, and activated C (II) prepd. from peach pits. Cations were removed by adsorption on a column of I, and the H ions formed were eliminated by passage of the water through a column contg. II. Regeneration solns. for I and II were 5% HCl and 5% NaHCO₃, resp. Factors studied include rate of flow, concn. of regenerating solns., ion-exchange capacity, and efficiency of softening synthetic solns. and well water. Water with a permanent hardness of 45-200° and a Na content of 5 g./l. can be softened satisfactorily. A. R. G.

1. CHERNILOVSKAYA, A.I.
2. USSR (600)
3. Water - Purification
4. Purification of bitter-sweet hard water with n-permutite. Trudy Inst.khim. AN Uz.SSR No. 3, 1953.

9. Monthly List of Russian Accessions, Library of Congress, June 1953, Uncl.

CHERNILOVSKAYA, A.I.; TSYGANOV, G.A.

Separation coefficient for simultaneous electrodeposition of
iron group metals. Uzb. khim. zhur. no.4:25-32 '58.

(MIRA 11:12)

1. Institut khimii AN UzSSR.
(Electroplating)

CHERNILOVSKAYA, A. I.
~~ЗНАЮЩАЯ, А. И.~~

5 (4) PHASE I BOOK EXPLOITATION SOV/2216
 Soveshchaniye po elektrokimii. 4th, Moscow, 1956.

Trudy... [sbornik] (Transactions of the Fourth Conference on Electrochemistry; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 868 p. Errata slip inserted. 2,500 copies printed. Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye khimicheskikh nauk.

Editorial Board: A.M. Frumkin (Resp. Ed.) Academician, O.A. Yezlin, Professor, S.I. Zhdanov (Resp. Secretary), S.M. Zhdanov, Professor, Professor, S.I. Zhdanov (Resp. Secretary), S.M. Zhdanov, Professor, Ya. M. Kolotyrkin, Doctor of Chemical Sciences, V.V. Losev, P.D. Lukovtsev, Professor, Z.A. Solov'yev, V.V. Stender, Professor, and G.M. Florinovich; Ed. of Publishing House: N.G. Yegorov; Tech. Ed.: T.A. Frusakova.

PURPOSE: This book is intended for chemical and electrical engineers, physicists, metallurgists and researchers interested in electrochemistry.

CONTENTS: The book contains 127 of the 138 reports presented at the Fourth Conference on Electrochemistry sponsored by the Department of Chemical Sciences and the Institute of Physical Chemistry, Academy of Sciences, USSR. The collection pertains to different branches of electrochemical kinetics, double layer theories and galvanic processes in metal electrodeposition and industrial electrolysis. Abridged discussions are given at the end of each division. The majority of reports not included here have been published in periodical literature. No personalities are mentioned. References are given at the end of most of the articles.

Zaynanov, G.A., A.I. Chernilovskaya and A.I. Iselievich
 Institut khimii AN UzbSSR-Institute of Chemistry, Academy
 Card 21/34

of Sciences, UzSSR). Separation Coefficient During Simultaneous Electrodeposition of Metals of the Iron Group	536
Zosimovich, D.P., and M.Ye. Machayeva. Cathodic Processes During the Separation of Zinc and Hydrogen at Electrodes of Other Metals	541
Shlyuzer, M.A. Role of a Side Anion in the Process of Chromium Electrodeposition	547
Yurkov, V.A. (Lesotekhnicheskii Institut Arhangels'ka. Institute for Forest Technology, Arhangels'ka). Neutralization of Metallic Ions at Macrodifferences from the Cathode	550
Chizhikov, D.M., and I.V. Eliseikava. Influence of Boric Acid on the Cathodic Polarization of Nickel in Sulfuric Acid Solutions	553

Card 22/34

CHERNILOVSKAYA, A.I.; TSYGANOV, G.A.

Decomposition of zinc and lead sulfide minerals by nitric acid
solutions. Uzb.khim.zhur. 6 no.6:5-10 '62. (MIRA 16:2)

1. Institut khimii AN UzSSR.

(Zinc sulfide) (Lead sulfide) (Nitric acid)

CHERNILOVSKAYA, F.M.

AID P - 2136

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 5/18

Author : Chernilovskaya, F. M., Kand. of Med. Sci.

Title : Experience with hygienic improvement of light in places of work

Periodical: Gig. i san., 3, 22-25, Mar 1955

Abstract : Describes the author's observations of the lighting in the spinning and thread Kombinat im. S. M. Kirov, the various arrangements and intensities, of luminescent lamps, and the effect of light on the fatigue of working women and on the efficiency of their work. Tables.

Institution: Leningrad Scientific Research Institute of Industrial Hygiene and Occupational Diseases

Submitted : S 14, 1954

CHERNILOVSKAYA, F.M., kandidat meditsinskikh nauk.

Glare on longitudinal lines of fluorescent lamps. Svetotekhnika
3 no.8:13-14 Ag '57. (MLRA 10:8)

1. Leningradskiy institut gigiyeny truda i profzabolevaniy.
(Fluorescent lamps)

CHERNILOVSKAYA, F.M., kand.med.nauk.

Problem of the causes of glare in fluorescent lamps. Svetotekhnika 3
no.10:22-23 0 '57. (MIRA 10:10)

1. Leningradskiy institut gigiyeny truda i profzabolevaniy.
(Fluorescent lamps)

EXCERPTA MEDICA Sec 17 Vol 5/1 Public Health Jan 59

286. THE BLINDING ACTION OF LUMINESCENT LAMPS ON THE EYES
(Russian text) - Chernilovskaya F. M. - GIG.1 SANIT.1958, 3 (44-49)
Graphs 5

The results of the investigations show that luminescent lamps, when in the field of vision of workmen, lower the visual capacity of the eye and consequently decrease the labour efficiency. The luminescent lamps, therefore, should be equipped with shades at a protective angle of 15° in accordance with the standard requirements for luminescent lamps. From the hygienic point of view the permissible angle of action of a luminescent lamp is 45° above the line of vision. Consequently the un-

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shaded luminescent lamps may be used under such conditions when they do not fall into the field of vision at an angle less than 45° from the horizontal line.

CHERNILOVSKAYA, F.M., kand.med.nauk

Pulsation effect of light from fluorescent lamps on the condition
of human visual functions and working capacity. Svetotekhnika
4 no.12:6-11 D '58. (MIRA 11:12)

1. Leningradskiy institut gigiyeny truda i profzabolevaniy.
(Fluorescent lamps)

VELIKSON, I.M.; SHERNILOVSKAYA, F.M.

Influence of the pulsation of light from fluorescent lamps on the human EEG; in connection with better illumination in industry. Fiziol. Zhur. 46 no. 7:795-801 '60. (MIRA 13:8)

1. From the Research Institut of Occupational Hygiene and Professional Diseases, Moscow.
(ELECTROENCEPHALOGRAPHY) (FLUORESCENT LIGHTING)

CHERNILOVSKAYA, F. M.; VELIKSON, I. M. (Leningrad)

Comparative physiological evaluation of lighting by fluorescent
and incandescent lamps. Gig. truda i prof. zab. 5 no.7:47-49
Jl '61. (MIRA 15:7)

1. Leningradskiy nauchno-issledovatel'skiy institut gigiyeny
truda i professional'nykh zabolevaniy.

(FLUORESCENT LIGHTING)
(ELECTROENCEPHALOGRAPHY)

CHERNILOVSKAYA, Fira Moiseyovna; LYKHINA, Ye.T., red.

[Hygienic significance of fluorescent lighting in
industry] Gigienicheskoe znachenie liuminestsentnogo
osveshchenia v promyshlennosti. Leningrad, Meditsina,
1964. 85 p. (MIRA 17:6)

CHERNILOVSKAYA, F.M., kand.med.nauk

Efficient electric lighting of some operations in the printing
trade. Svetotekhnika 10 no.2:1-6 F '64. (MIRA 17:4)

1. Leningradskiy institut gigiyeny truda i professional'nykh
zabolevaniy.

L 07455-67 EWT(d)/EWP(h)/EWP(1) RH

ACC NR: AP6035344

SOURCE CODE: UR/0239/66/052/011/1332/1339

AUTHOR: Chernilovskaya, F. M.

ORG: Institute of Industrial Hygiene and Occupational Diseases, Leningrad (Institut gigiyeny truda i profzabolevaniy)

TITLE: Change in the intensity of illumination as a factor increasing human work capacity

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 52, no. 11, 1966, 1332-1339

TOPIC TAGS: human physiology, bodily fatigue, central nervous system, cerebral cortex, work capacity

ABSTRACT: The effect of lighting conditions on work capacity in industrial conditions (close work requiring good light) was studied. The effectiveness of two light regimes was compared: constant illumination of 300, 500, and 700 lux, and varied illumination— 300 lux for 1 1/2 hr at the beginning of the day and after the rest period followed in each case by 1 1/2 hr at 700 lux. Increasing the level of illumination in this manner improved the functional condition of the visual analyzer and caused less fatigue than was observed under conditions of constant illumination at 500 and even 700 lux. Increasing the light intensity has a disinhibiting effect on the central nervous system, increasing the excitability and lability of nerve cells in the cerebral cortex. Changing the intensity of illumination increased productivity

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UDC: 612.766.1+613.5

L 07455-67

ACC NR: AP6035344

9.4% as compared with constant illumination at 500 lux (taken as the standard). It was demonstrated that increasing the intensity of illumination during periods of increasing fatigue keeps work capacity at a high level to the end of the day. Orig. art. has: 5 figures and 1 table.

SUB CODE: 06/ SUBM DATE: 04Oct65/ ORIG REF: 015/ OTH REF: 002/ ATD PRESS: 5104

Card 2/2 *am*

CHERNILOVSKAYA, I. M.

"Klinika Psikhozov, Razvivayushchikhsya v Svyazi s Perenesennym v Proshlom
Syprym Tifom". p. 246

Psikhiatricheskaya klinika i problemy patologii vysshey nervnoy deyatel'nosti.
Sbornik trudov Kafedry psikhiatrii., Leningrad. 1957. vol. 2.

resp. ed. I. F. SLUCHEVSKIY.

Chair of Psychiatry.

Leningrad State Inst. Advanced Training of Physicians.

SHAKIN, M.I.; CHERNILOVSKAYA, I.M.; NIKOLAYEVA, K.N.

Mental hygiene work at industrial enterprises. Trudy Gos. nauch.-issl.
psikhonevr. inst. no.24:217-224 '61. (MIRA 15:5)

1. Dispansernoye otdeleniye Gosudarstvennogo nauchno-issledovatel'skogo
psikhonevrologicheskogo instituta imeni Bekhterava.
(INDUSTRIAL HYGIENE) (MENTAL HYGIENE)

ZAYTSEV, V.A.; CHERNIKOVSKAYA, T.Ya.

"Transactions of the All-Union Research Institute for Medicinal and Aromatic Plants (VILAR)". Part 11, 1959. Reviewed by V.A.Zaitsev, T.IA.Cherikovskaia. Apt. delo 10 no.4:91-92 J1-Ag '61. (MIRA 14:12)
(BOTANICAL DRUG INDUSTRY)

CHERNILOVSKIY, Ye.

The ZIS-585 E dump truck for farm use. Avt.transp.33 no.9:30-31
S'55. (MLRA 8:12)

(Dump trucks)

CHERNILOVSKIY, Ye.

The MMZ-776 single-axle semitrailer used in livestock transport.

Avt. transp. 36 no.3:4 Mr '58.

(Truck trailers)

(MIRA 11:3)

Chernilovskiy, Ye.

CHERNILOVSKIY, Ye.

Tractors with the MMZ-584 semitrailers. Avt. transp. 36 no.1:21-23
Ja '58. (MIRA 11:1)

1. Mytishchinskiy mashinostroitel'nyy zavod.
(Tractors--Trailers)

CHERNILOVSKIY, Ye.R.

The ZIL-MMZ-585I and ZIL-MMZ-585K dump trucks.. Biul.tekh.ekon.
inform. no.12:64-65 '58. (MIRA 11:12)
(Dump trucks)

CHERNILOVSKIY, Ye., inzh. ^{R.}

The MMZ-584 V semitrailer used for transportation of long and large-sized freight. Avt. transp. 36 no.12:35 D '58. (MIRA 11:12)
(Truck trailers)

CHERNILOVSKIY, Ye.R.

The ZIL-MMZ-584 automobile train. Biul.tekh.-ekon.inform. no.11:
77-79 ' 58. (MIRA 11:12)
(Automobile trains)

CHERNILOVSKIY, Ye.

Modernized ZIL-MMZ-585I and ZIL-MMZ-585K dump trucks. Avt. transp.
36 no.10:32-34 U '58. (MIRA 13:1)
(Dump trucks)

S/081/61/000/020/068/089
B142/B101

AUTHOR: Chernin

TITLE: Behavior of cements in steaming

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 311-312, abstract 20K278 (Sb."II Mezhdunar. kongress po betonu, 1957". M., Gosstroyizdat, 1960, 16-27)

TEXT: The author studied the use of preheating before steaming during 72 hr at 60 and 85°C on cement slurry samples of 4.4.16 cm. The samples were produced on the basis of Portland cements of the types 225, 325, and 425, as well as from Portland slag cement. In all cases, heating raised the $R_{compr.}$ but in different degrees for different cements. Cement type, fineness of grinding, and setting time showed no effect. In steaming at 85°C, the temperature inside samples is 7°C higher than that of the vapor, which causes an intense swelling of samples. Swelling decreases with increasing time of preheating. The swelling of samples cannot be explained by absorption of condensed moisture or by thermal expansion of air in sample pores. It may be explained by the formation of hydrogen or carbon from

Card 1/2

Behavior of cements in steaming

S/081/61/000/020/068/089
B142/B101

iron carbide which got into the cement while the clinker was ground, or by evaporation of water due to temperature differences between material and vapor. At a steaming temperature of 85°C and an excess pressure of 0.5 atm in the steaming chamber, preheating has no effect. The $R_{28}^{compr.}$ of steamed samples is always lower than that of air-hardened samples, especially with the use of BT4 (BTTs). [Abstracter's note: Complete translation.] ✓

Card 2/2

CHERNIN, A. D.

USSR/Electricity

Transformers

Switches, Automatic

Jan 49

"The Operation of a Minimum Voltage Selective Device on the Receiving End of a Line With Unilateral Feed, Single-Phase Connection, and Automatic Switching," A. B. Chernin, Cand Tech Sci, Moscow, 3 pp

"Elektrichestvo" No 1

Schematic circuit and vector diagrams describe device for selecting the grounded phase and switching it out. Consists of three minimum current relays fed from the voltage transformer on the low-voltage side of the receiving end of the line. Submitted 11 May 48.

35/AP/25

CHERNIN, A. B., Docent

PA 196T42

USSR/Electricity - Transmission Lines Sep 51
Repeated Reclosing

"The Application of Selective Elements Operating on Impedance for Selection of the Damaged Phase," Docent A. B. Chernin, Cand Tech Sci, "Voprosy Elektroproyekta"

"Elektrichestvo" No 9, pp 12-19

Considers the problem of using an impedance relay with compensation of the voltage drop for the selection of the damaged phase in single-phase isolation and automatic repeated

196T42

USSR/Electricity - Transmission Lines Sep 51
(Contd)

reclosing. These selective elements are simple to build and install and provided sufficient sensitivity in many cases. Submitted 15 Jan 51.

196T42

~~CHERNIN, A.B.~~; ZHAKOV, Ye.M., redaktor; LARIONOV, G.Ye., tekhnicheskii
redaktor

[Short circuits in incomplete phase electrical systems] Korotkie
samykaniia pri nepolnofasnykh rezhimakh elektricheskikh sistem.
Moskva, Gos. energ. izd-vo, 1952. 167 p. (MIRA 8:2)
(Short circuits) (Electric circuits)

ROSENKNOP, M. P.; CHERNIN, A. B.

Electric Currents-Grounding, Electric Relays

Relay protection and automatic in-phase closing of current in case of short circuits between two phases or one phase and ground. Elek. sta. 23 no. 3:33-38 Mr '52.
Kand. Tekhn. Nauk

Monthly List of Russian Accessions, Library of Congress, July 1952. UNCLASSIFIED

CHERNIN, A. B.

Feb 53

USSR/Electricity - Power Systems

"Calculation of Short-Circuit Currents in Electric Power Networks with Longitudinal Voltage Regulation Under Load," Docent A. B. Chernin, Cand Tech Sci, Teploeletkroproyekt

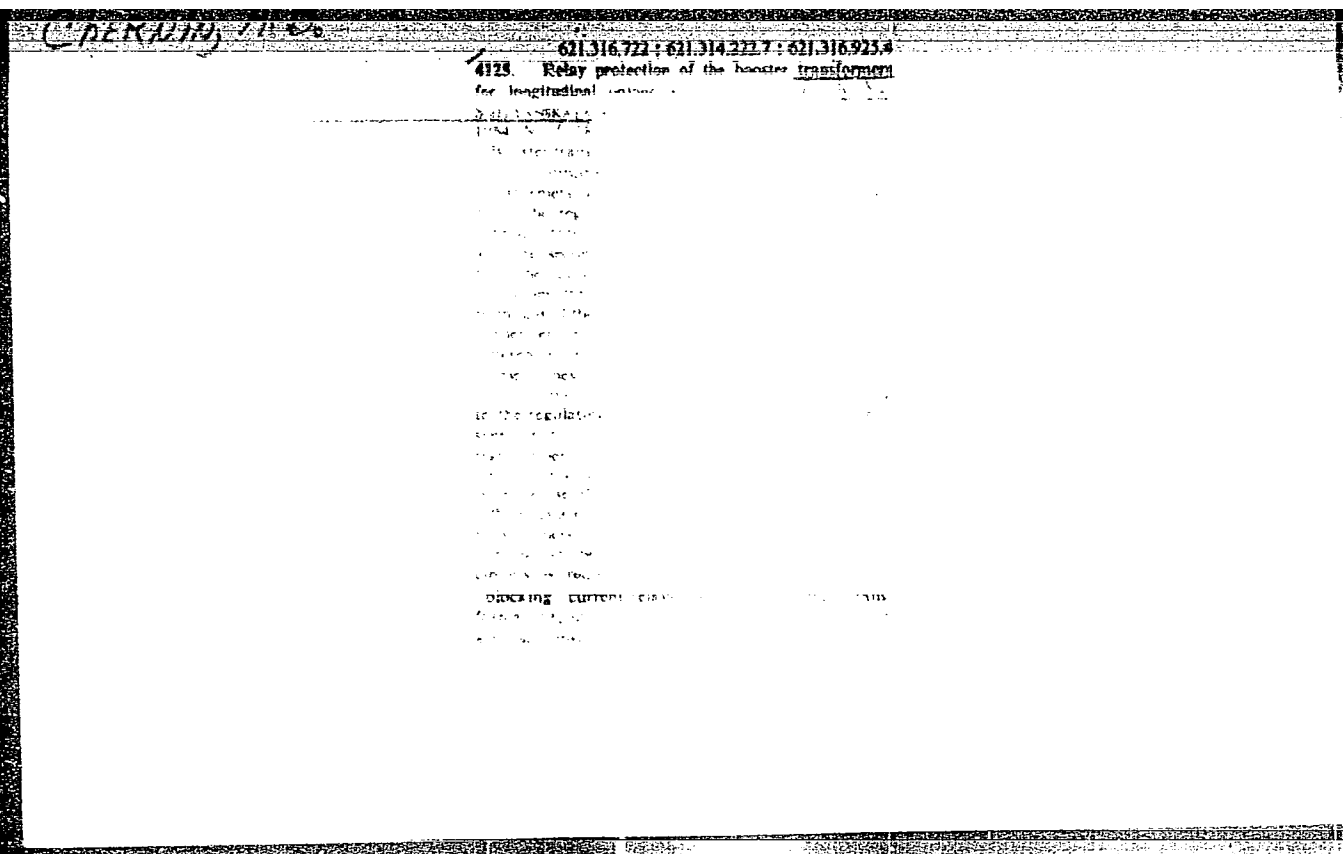
Elek-vo, No 2, pp 13-24

Sets forth principles for calcg currents when short circuits occur in networks using booster transformers for voltage regulation and gives calcn methods using relationships for 4-terminal networks and equiv circuits. Works out equiv circuits of

248T22

transformers with voltage regulation from one side by booster transformers. Cites numerical examples of calcns. Submitted 25 Mar 52.

248T22



CHERNIN, A.B.

AID P - 1600

Subject : USSR/Electricity

Card 1/2 Pub. 27 - 9/27

Author : Chernin, A. B., Kand. of Tech. Sci., Dotsent

Title : Short-circuits in 400-kv lines under unsymmetrical phase conditions

Periodical : Elektrichestvo, 3, 41-48, Mr 1955

Abstract : The author applies the positive phase-sequence circuit analysis to investigate phenomena in long 400-kv lines under unsymmetrical short-circuits. He builds equivalent circuits for various cases of unsymmetrical faults and derives equations for the line characteristics, accounting for distributed capacitance. He establishes calculation schemes for the investigation of stability of parallel performance of 400-kv transmission and for the study of relay protection performance. He introduces simplified methods of calculation with the use of complex variables

AID P - 1600

Elektrichestvo, 3, 41-48, Mr 1955

Card 2/2 Pub. 27 - 9/27

and of symmetrical components. Twelve diagrams, 4
Russian references (1935-1952)

Institution: Teploelektroprotekt (Trust for the Planning and Investi-
gation of Thermal and Electric Power Stations, Networks,
and Substations)

Submitted : S 15, 1954

in systems containing ...
ed parameters, based on operational principles. To simplify calculations, load conditions are superimposed on the fault section, as a result of which the system is brought to the zero initial state. Problems connected with the establishment of disturbed conditions are considered in sections dealing with calculation of transient processes during phase faults (unearthed) and earth faults respectively.

LOSEV, S.B., inzh. (Moskva); CHERNIN, A.B., kand.tekhn.nauk (Moskva)

Investigation of a three-phase directional resistance relay
in shortcircuit and partial-phase operating conditions.
Elektrichestvo no.6:29-38 Je '60. (MIRA 13:7)
(Electric relays)

CHERNIN, A.B.

Short-circuit currents in networks containing autotransformers
with additional transformers for prolonged voltage regulation.
Elektrichestvo no.10:13-19 0 '60. (MIRA 14:9)

1. Teploelektroproyekt.
(Electric power distribution) (Electric transformers)

CHERNIN, A.B., inzh.

Calculation of voltages and currents in a system which operates on
two wires with ground. Elek.sta. 31 no.7:65-67 J1 '60.

(MIRA 13:8)

(Electric networks)

(Rural electrification)

CHERNIN, Abram Borisovich, kand.tekhn.nauk

Equivalent circuit of an auxiliary transformer for longitudinally-transverse voltage regulation in the presence of a load. Izv. vys. ucheb. zav.; elektromekh. 5 no.12:1413-1415 '62. (MIRA 16:6)

1. Nachal'nik sektora tipovogo proyektirovaniya Gosudarstvennogo projektnogo i nauchno-issledovatel'skogo instituta "Energoset'proyekt".
(Electric power distribution)

CHERNIN, Abram Borisovich; DROZDOV, A.D., retsenzent; RUBINCHIK,
V.A., red.; RUDMAN, A.A., red.; LARIONOV, G.Ye., tekhn.
red.

[Calculation of electrical magnitudes and behavior of relay
protection of electrical systems with partial phase operation]
Vychislenie elektricheskikh velichin i povedenie releinoi za-
shchity pri nepolnofaznykh rezhimakh v elektricheskikh siste-
makh. Moskva, Gosenergoizdat, 1963. 415 p. (MIRA 16:5)
(Electric power distribution)
(Electric protection)

CHERNIN, Abram Borisovich, kand.tekhn.nauk

Calculation of short-circuit currents of power supplying
substations. Izv.vys.ucheb.zav.; elektrotekh. 6 no.2:275-278
'63. (MIRA 16:4)

1. Nachal'nik sektora tipovogo proyektirovaniya gosudarstvennogo
proyektnogo i nauchno-issledovatel'skogo instituta "Energoset"-
proyekt".

(Electric railroads--Substations)

CHEERNII, A.B., doktor tekhn.nauk

Composition of zero sequence equivalent circuits for parallel lines
with different potentials. Izv.vys.ucheb.zav.; energ. 8 no.10:10-15
0 '65. (MIRA 18:10)

1. Moskovskiy ordena Lenina energeticheskiv institut. Predstavlena
kafedroy avtomatizatsii i releyroy zashchity energosistem.

CHERNIN, A.B., doktor tekhn.nauk (Moskva)

Composition of equivalent circuits of zero-sequence parallel lines
for some special cases of hookup. Elektrichestvo no.9:83-85 S '65.
(MIRA 18:10)

ATABEKOV, G.I.; BELOUSOV, M.M.; BULGAKOV, K.V.; VASIL'YEV, D.V.;
YEGIZAROV, I.V.; ZAKHAROV, S.N.; ZEYLIDZON, Ye.D.; KOSTENKO, M.P.;
MANOYLOV, V.Ye.; MARNEVSKIY, B.I.; RYZHOV, P.I.; SOLOV'YEV, I.I.;
SYROMYATNIKOV, I.A.; FABRIKANT, V.L.; CHERNIN, A.B.; CHERNOBROVCOV,
N.V.; FEDOSEYEV, A.M.; SHABADASH, B.I.; SHCHEDRIN, N.N.;
FATEYEV, A.V.

Viktor Ivanovich Ivanov, 1900-1964; an obituary. Elektrichestvo
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TITLE: A model of a universe filled with radiation and dust particles

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ABSTRACT: Isotropic cosmological models are represented by simple analytical formulas for two limiting cases: 1) space is filled with dust particles with a pressure p_d much less than the energy density ϵ_d , (including rest energy); 2) space is filled with radiation with a pressure p_r equal to 1/3 the energy density ϵ_r . It is not impossible that in the present universe the gravitational effect of "ordinary" matter and the gravitational effect of radiation (primarily neutrinos) are equally important. Therefore an isotropic model of the universe which contains matter in both these forms is considered. This model possesses the general properties of the

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Friedman cosmological models. In the new model the metric tensor depends on time. This dependence is given as the sum of a term applying only to dust and a term applying only to radiation. For the Friedman metric element

$$ds^2 = c^2 d\tau^2 - a^2(\tau) [d\chi^2 + f^2(\chi) (\sin^2 \theta d\varphi^2 + d^2\theta)],$$

$$f = \begin{cases} \sin \chi, & \epsilon > \epsilon_h \\ \chi, & \epsilon = \epsilon_h \\ \text{sh } \chi, & \epsilon < \epsilon_h \end{cases}$$

the gravitational equations are

$$\frac{d\epsilon}{p + \epsilon} = -3 \frac{da}{a},$$

$$\kappa \epsilon = \frac{3}{a^2} \left[\left(\frac{da}{d\tau} \right)^2 + E \right], \quad E = \begin{cases} 1, & \epsilon > \epsilon_h \\ 0, & \epsilon = \epsilon_h \\ -1, & \epsilon < \epsilon_h \end{cases}$$

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Equation (1), assuming that radiation and dust do not interact in the course of expansion, is applicable separately to the dust and radiation subsystems. This gives

$$\epsilon_d = \frac{A}{a^3}, \quad \epsilon_r = \frac{B}{a^4}$$

where A, B are integration constants. Substituting $\epsilon = \epsilon_d + \epsilon_r$ into equation (2) (where the variable η , related to τ by the expression $d\tau = ad\eta$ can be introduced in place of τ) and integrating gives: a) for a space of positive curvature

$$a = a_0(1 - \cos \eta) + b_0 \sin \eta, \quad \tau = \frac{a_0}{c}(\eta - \sin \eta) + \frac{b_0}{c}(1 - \cos \eta);$$

b) for a space of negative curvature

$$a = a_0(\operatorname{ch} \eta - 1) + b_0 \operatorname{sh} \eta, \quad \tau = \frac{a_0}{c}(\operatorname{sh} \eta - \eta) + \frac{b_0}{c}(\operatorname{ch} \eta - 1);$$

c) for a plane space

$$a = \frac{1}{2} a_0 \eta^2 + b_0 \eta, \quad \tau = \frac{1}{6} \frac{a_0}{c} \eta^3 + \frac{1}{2} \frac{b_0}{c} \eta^2.$$

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